

Third Year  
Data Warehouse Project  
2025

Project Overview:

1. The team size is **3 to 5** students and **do not ask for any excuses**.
2. Search for any **OLTP** database and study its schema carefully **that does not already have a pre-built data warehouse** online (e.g., avoid AdventureWorks, Northwind, WideWorldImporters).
3. Define the **KPIs** you want to extract from the source system.
4. Design a dimensional model (**star/galaxy schema**) to get those KPIs.
5. The minimum number of dimensions is **6** and the minimum number of fact tables is **3**.
6. Use **SSIS** to extract the data from the source system and load it to the staging area (**STG**) and then from **STG** to the data warehouse (**DWH**) with the needed transformations.
7. Execute some **analytical queries** on the fact tables to get insights from the data.
8. Finally **deploy** and **schedule** your packages.

Project Deliverables:

1. A cover page containing students' names and IDs.
2. Physical model of the source system (the tables from which you will build your model).
3. Dimensional model.
  - a. Define the business processes that you will model.
  - b. Declare the grain of each fact table (simply describe what a fact table record represents).
  - c. Define the type of each fact table.
  - d. Define the dimensions and the type of each one.
  - e. Define the measures that will appear in the fact tables and the type of each one.
  - f. Physical model of your model (the final star/galaxy schema).
4. Screenshots of the data flow tasks, and control flow tasks used for building the DWH. (**Give a meaningful title for each image**)
5. Queries on each fact table to let me understand what this fact table represents and what insights we can get from it, and a screenshot of the result set of each query.
6. Screenshots of the deployed packages in SSIS with their schedule.
7. **[Bonus]** Build an **interactive** dashboard for the DWH using any data visualization tool (Ex: Microsoft Power BI).

Where to submit?

1. Name your document as follows:  
**DWH\_Project\_ID1\_ID2\_ID3.pdf**  
**Ex:** DWH\_Project\_20200011\_20200022\_20200033.pdf
2. Upload your document (in **PDF** format) to this Google Form: <https://forms.gle/BqKD4hdVyaoSkDPG7>

The form will be closed on **Thursday, May 8<sup>th</sup> at 11:59 PM** and the discussion will be during the following week.

*Wishing you all the best ♥*